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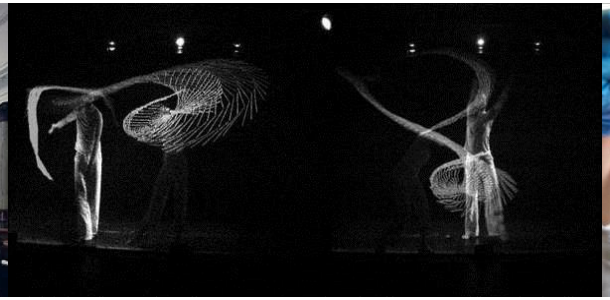
Giving Context to Health Informatics

Ruth Evans – *Yorkshire Centre for Health Informatics*
Mary Law – *Academic Unit of Primary Care*

School of Medicine



Leeds Institute of Health Sciences

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Academic Unit of Primary Care
LEEDS INSTITUTE OF HEALTH SCIENCES

Yorkshire Centre for Health Informatics
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tpp systmone

Outline

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30 minute session - presentation and interactive demonstration of:

Clinical **I**nformation **S**ystems for **P**atient **C**are **(CIS4PC)**

- How the University of Leeds interactively delivers **health informatics teaching** through **CIS4PC** content and
- how by working together we integrate **health informatics** and technology into **clinical teaching**

Premise

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Health informatics and interactive use of technology are essential tools for health care providers/practitioners

… ***yet there is still limited access for students in a safe learning environment***.

The health professionals of tomorrow **need to experience the technology** as students in order to be better practitioners when qualified.

All Health Professional Bodies (GMC / HPC / NMC) have specifications for qualifying students that support this.

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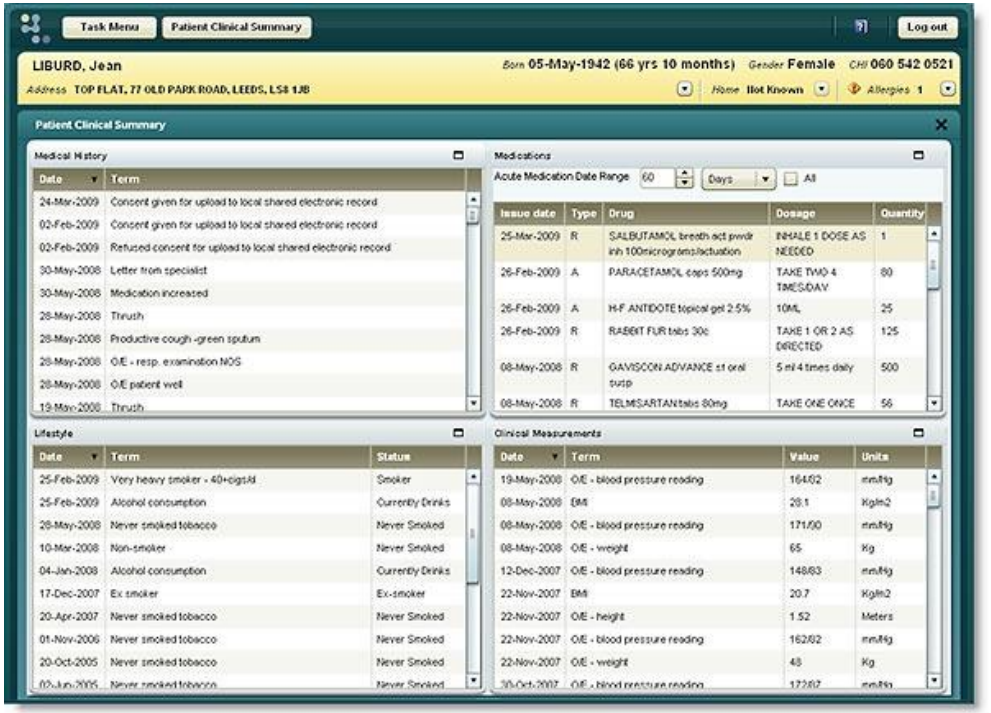

Health informatics technology is now common in both primary and secondary care settings

CIS4PC - Aim

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To ensure **healthcare professionals**

are better able to use

Clinical Information Systems (CIS)

and

that **the use of CISs** to teach **clinical medicine** is

maximised at undergraduate and postgraduate

levels and in continuing professional development.

What we do

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Give under/postgraduate students access to a ***live*** **Clinical Information System (*TPP*** systmone ***)***

Don't "train to use the system", but enable students to **appreciate, access** and **navigate *any* Clinical Information System**

CIS4PC uses ***rich patient records*** developed with varying chronic diseases and backgrounds to aid the students' ***'live'*** learning experience.

Students access the ***live CIS,*** using individual patient records to support their learning

Interactive sessions: focus

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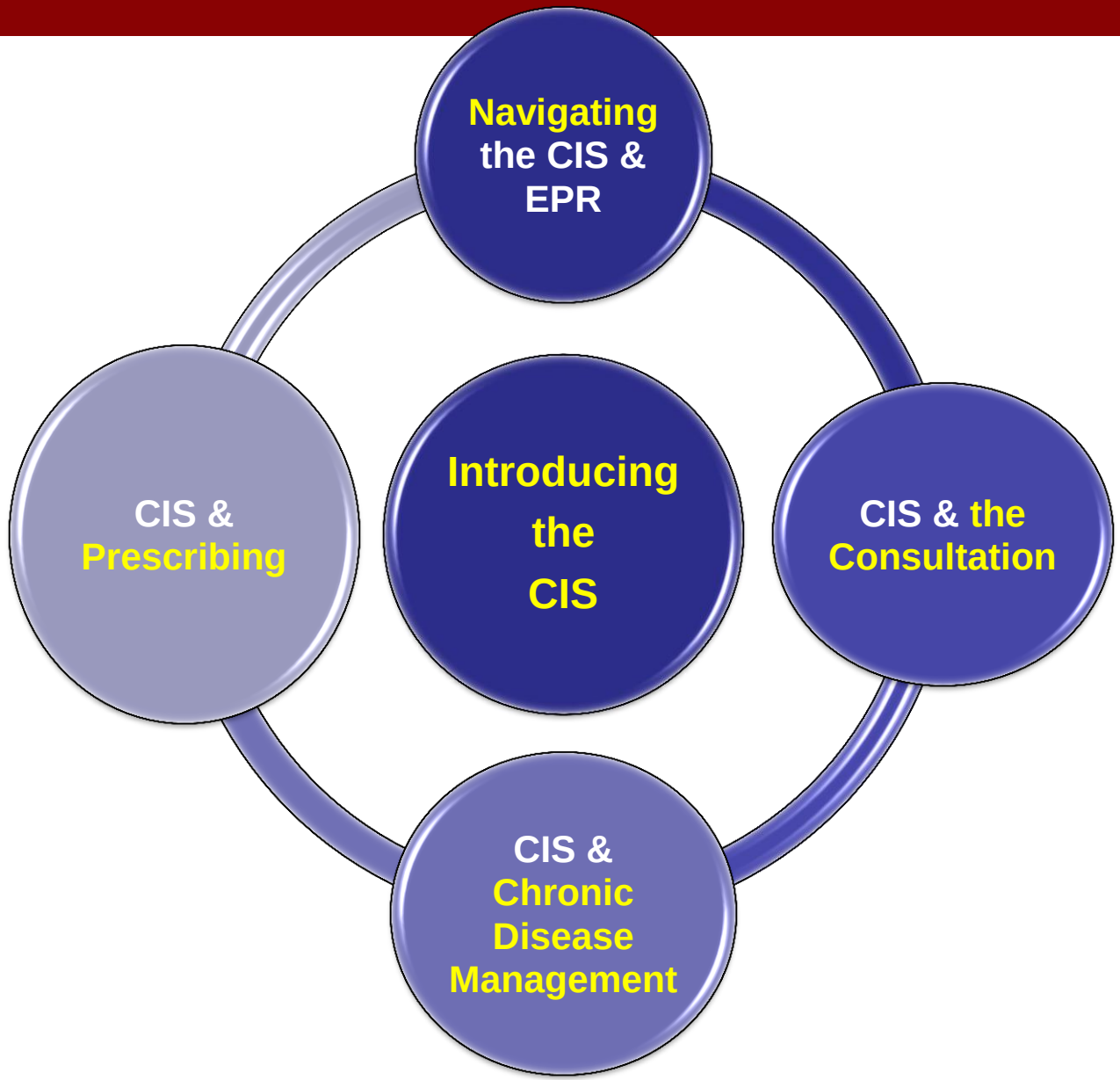

Example 1:
Tool for Navigating CIS

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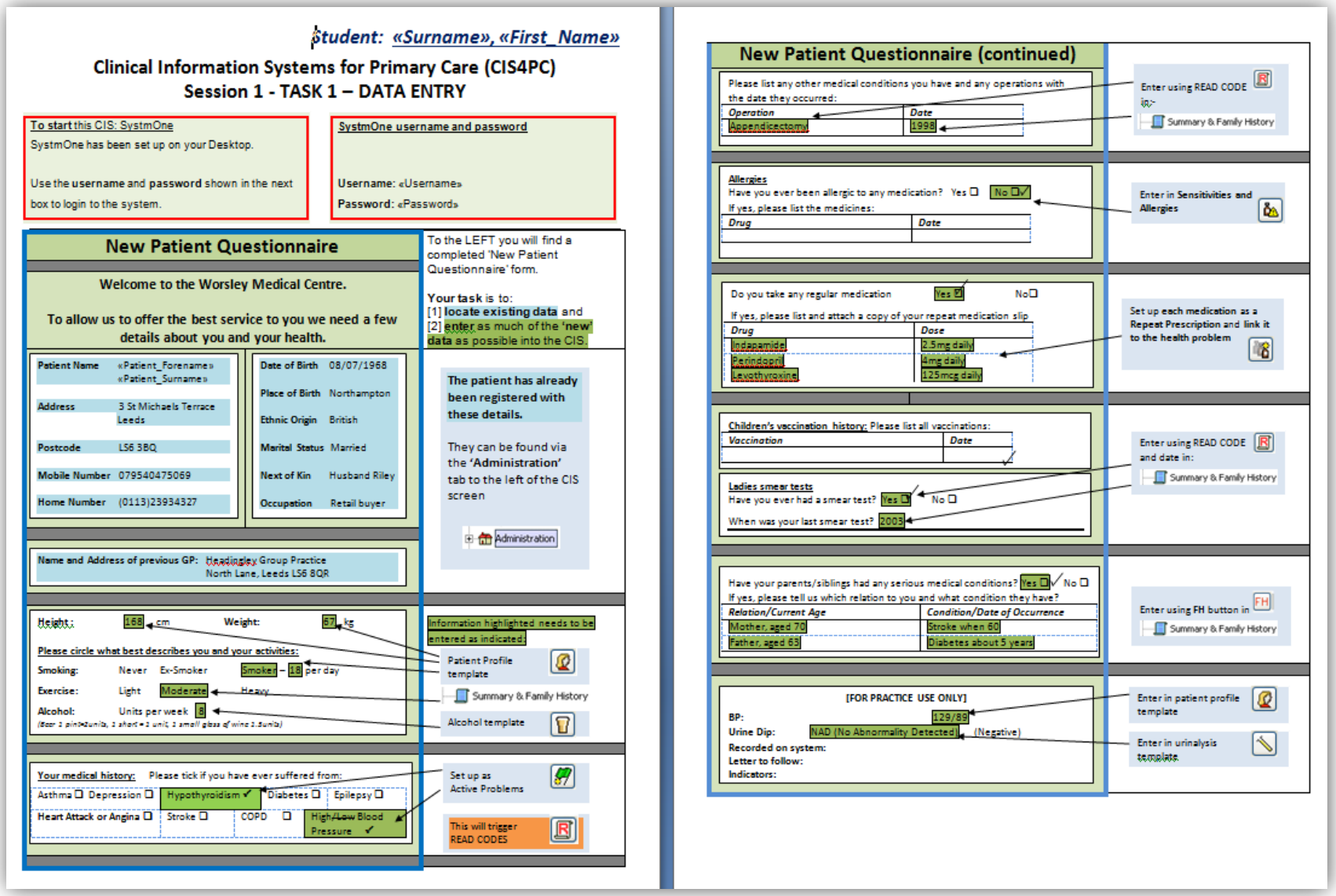

Student: «Surname», «First_Name»

Clinical Information Systems for Primary Care (CIS4PC)
Session 1 - TASK 1 – DATA ENTRY

To start this CIS: SystmOne
SystmOne has been set up on your Desktop.

Use the **username** and **password** shown in the next box to login to the system.

SystmOne username and password

Username: «Username»
Password: «Password»

New Patient Questionnaire

Welcome to the Worsley Medical Centre.

To allow us to offer the best service to you we need a few details about you and your health.

Patient Name	«Patient_Forename» «Patient_Surname»	Date of Birth	08/07/1968
Address	3 St Michaels Terrace Leeds	Place of Birth	Northampton
Postcode	LS6 3BQ	Ethnic Origin	British
Mobile Number	079540475069	Marital Status	Married
Home Number	(0113)23934327	Next of Kin	Husband Riley
		Occupation	Retail buyer

Name and Address of previous GP: Headingley Group Practice, North Lane, Leeds LS6 8QR

Height: 168 cm Weight: 87 kg

Please circle what best describes you and your activities:

Smoking: Never Ex-Smoker Smoker – 18 per day
Exercise: Light Moderate Heavy
Alcohol: Units per week 8
(Beer 1 pint=2units, 1 short = 1 unit, 1 small glass of wine 1.5units)

Your medical history: Please tick if you have ever suffered from:

Asthma ☐ Depression ☐ Hypothyroidism ✓ Diabetes ☐ Epilepsy ☐
Heart Attack or Angina ☐ Stroke ☐ COPD ☐ High/Low Blood Pressure ✓

To the LEFT you will find a completed 'New Patient Questionnaire' form.

Your task is to:
[1] **locate existing data** and
[2] **enter** as much of the **'new' data** as possible into the CIS.

The patient has already been registered with these details.

They can be found via the **'Administration'** tab to the left of the CIS screen

Administration

Information highlighted needs to be entered as indicated:

Patient Profile template
Summary & Family History
Alcohol template
Set up as Active Problems
This will trigger READ CODES

New Patient Questionnaire (continued)

Please list any other medical conditions you have and any operations with the date they occurred:

Operation	Date
Appendicectomy	1998

Enter using READ CODE
Summary & Family History

Allergies
Have you ever been allergic to any medication? Yes ☐ No ☐✓
If yes, please list the medicines:

Drug	Date

Enter in Sensitivities and Allergies

Do you take any regular medication Yes ☑ No ☐
If yes, please list and attach a copy of your repeat medication slip

Drug	Dose
Indapamide	2.5mg daily
Perindopril	4mg daily
Levothyroxine	125mcg daily

Set up each medication as a Repeat Prescription and link it to the health problem

Children's vaccination history: Please list all vaccinations:

Vaccination	Date

Enter using READ CODE and date in:
Summary & Family History

Ladies smear tests
Have you ever had a smear test? Yes ☐ No ☐
When was your last smear test? 2003

Have your parents/siblings had any serious medical conditions? Yes ☐✓ No ☐
If yes, please tell us which relation to you and what condition they have?

Relation/Current Age	Condition/Date of Occurrence
Mother, aged 70	Stroke when 60
Father, aged 63	Diabetes about 5 years

Enter using FH button in
Summary & Family History

[FOR PRACTICE USE ONLY]

BP: 129/89
Urine Dip: NAD (No Abnormality Detected) (Negative)
Recorded on system:
Letter to follow:
Indicators:

Enter in patient profile template
Enter in urinalysis template

Example 2: Tools used for exploring use of the CIS in a consultation

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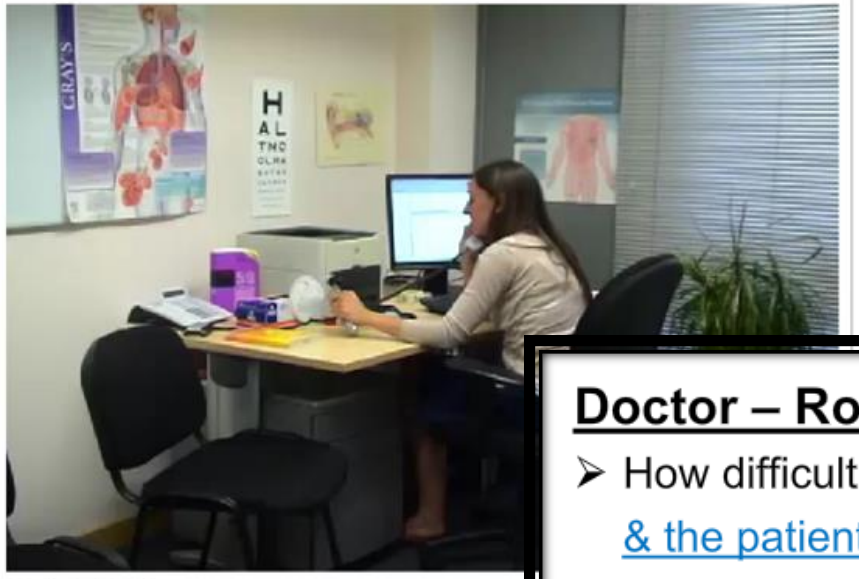

Doctor – Role Play

- How difficult was it to remain focussed on the consultation & the patient as opposed to the consultation & the CIS?
- Did the feedback raise issues you were NOT aware of?

Patient/Observer – Role Play

- How easy was it to construct feedback whilst playing the patient?
- What were the key issues that need to be addressed in order to 'effectively use the computer in the consultation'?

Example 3: Tool used in Chronic Disease Management session

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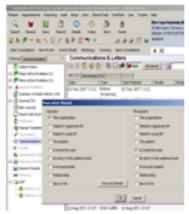
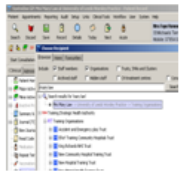
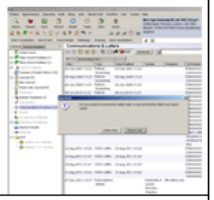
Handout to support teaching

CIS 4 Patient Care

Input the log in details and specific PATIENT on your OWN log in sheet			
Task	Content	Advice	Done
1	**Access and interrogate** the patient 's electronic record	Look into the patient record to find relevant details and basically how to navigate the system	
2	**Complete** the **Diabetes template**	This can be found in the table to the left of the screen titled **'CLINICAL'.** At the bottom is **'QOF'** Click on the **'+'** sign and you will find the template. Right Click on the template to open it. **BP 164/96 ECG Normal**	
3	Complete QRisk2 Calculation	In the titles header bar you will find 'Clinical Tools' select and complete	
4	**Send a referral** to the Dietician	There are several ways this can be done: In the table to the left of the screen titled **'CLINICAL'** - select '**Communication & Letters',** - Right Click, select **'New Letter'** o Sender **'This organisation'** o Recipient **'A SystmOne user'** o Select 'Ok' - Type in (***name of session lead***) [then search] o Select 'Ok' **RECIPIENT**: pre filled in	 

Handout to support teaching

CIS 4 Patient Care

		SENDER: Add your own name **WRITING:** o Letter Type: select ***'Referral'*** o Editor: select ***'MS Word'*** o Template: *select* ***'Diabetes Referral Form'*** - Select '***Write Now'*** If any 'error' messages appear, click 'okay' until referral opens. - select ' **Send'** or **'Amend later'**	 
5	**Prescribe / Review** appropriate medication	Consider the information gained at the consultation. What medication needs added to the patient's current medication?	
6	**Send a task** to another professional involved in patient's care	In the titles header bar you will find either the icon **'Task'** or under the Workflow header **'New Task'** Select: **University Worsley Practice,** Send to: (***name of session lead***)	
7	**Generate a prescription** and a **'repeat medication template'**	DO NOT PRINT	
8	**Record** the consultation **Apply clinical coding** (QOF) as appropriate for audit purposes	Using the **'Start Consultation'** box, record your experience with the patient	

Recording Patient Data

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A new **patient** registers with the practice and completes a paper ***"New Patient Questionnaire"***.

Administration staff enter the ***general information*** and have ***requested record access/transfer***.

Access to the record is achieved and the **form** is passed to a member of the **Medical Team** to enter **health information** from the ***"New Patient Questionnaire"*** prior to meeting the patient.

Your task is to enter this information!

New Patient Questionnaire

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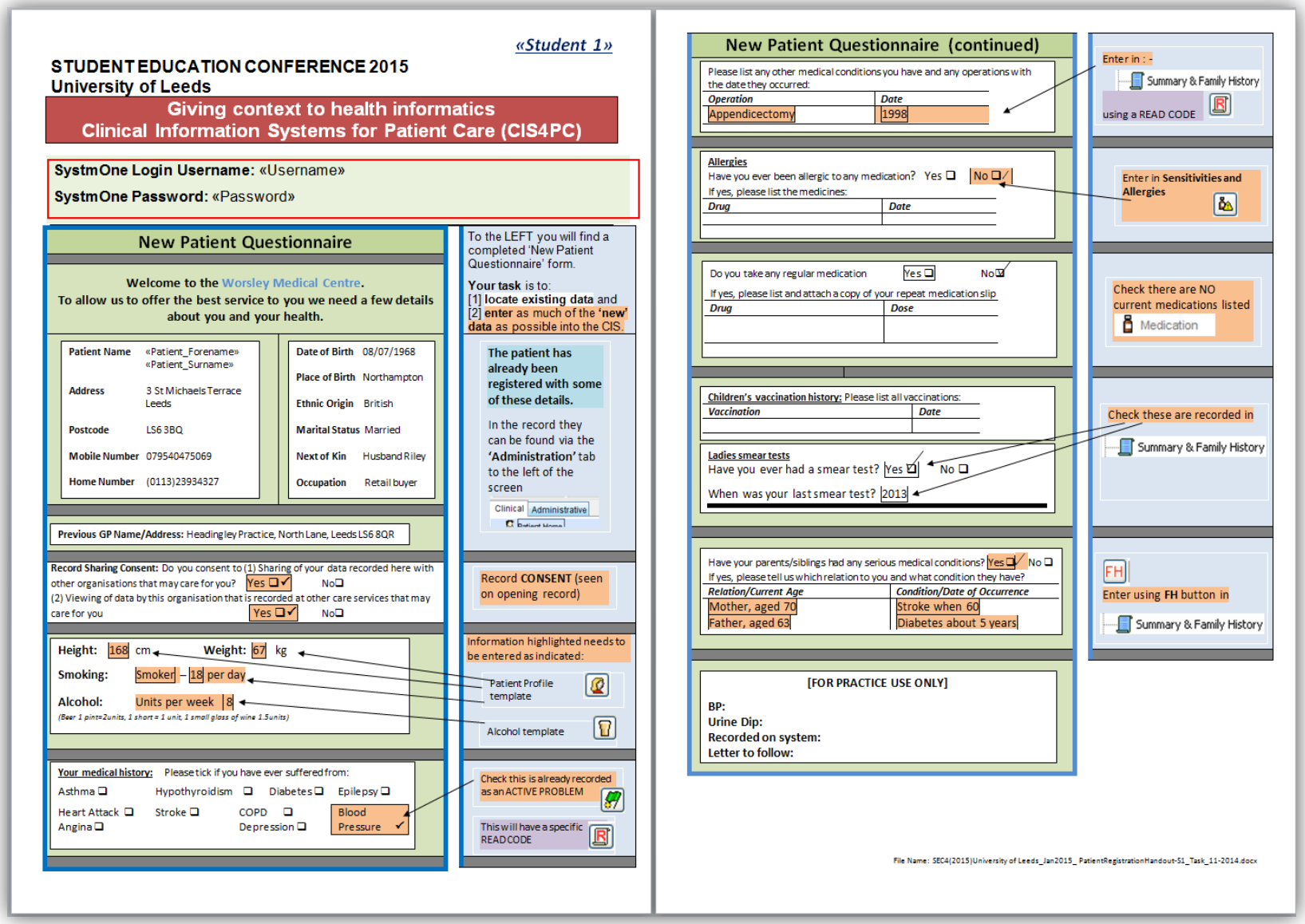

«Student 1»

STUDENT EDUCATION CONFERENCE 2015
University of Leeds

Giving context to health informatics
Clinical Information Systems for Patient Care (CIS4PC)

SystmOne Login Username: «Username»
SystmOne Password: «Password»

New Patient Questionnaire

Welcome to the Worsley Medical Centre.
To allow us to offer the best service to you we need a few details about you and your health.

Patient Name	«Patient_Forename» «Patient_Surname»	**Date of Birth**	08/07/1968
Address	3 St Michaels Terrace Leeds	**Place of Birth**	Northampton
Postcode	LS6 3BQ	**Ethnic Origin**	British
Mobile Number	079540475069	**Marital Status**	Married
Home Number	(0113)23934327	**Next of Kin**	Husband Riley
		Occupation	Retail buyer

Previous GP Name/Address: Headingley Practice, North Lane, Leeds LS6 8QR

Record Sharing Consent: Do you consent to (1) Sharing of your data recorded here with other organisations that may care for you? Yes ☐✓ No☐
(2) Viewing of data by this organisation that is recorded at other care services that may care for you Yes ☐✓ No☐

Height: 168 cm Weight: 67 kg
Smoking: Smoker – 18 per day
Alcohol: Units per week 8
(Beer 1 pint=2units, 1 short = 1 unit, 1 small glass of wine 1.5units)

Your medical history: Please tick if you have ever suffered from:
Asthma ☐ Hypothyroidism ☐ Diabetes ☐ Epilepsy ☐
Heart Attack ☐ Stroke ☐ COPD ☐ Blood Pressure ✓
Angina ☐ Depression ☐

To the LEFT you will find a completed 'New Patient Questionnaire' form.

Your task is to:
[1] **locate existing data** and
[2] **enter** as much of the **'new' data** as possible into the CIS.

The patient has already been registered with some of these details.

In the record they can be found via the **'Administration'** tab to the left of the screen

Clinical | Administrative

Record **CONSENT** (seen on opening record)

Information highlighted needs to be entered as indicated:

Patient Profile template

Alcohol template

Check this is already recorded as an ACTIVE PROBLEM

This will have a specific READ CODE

New Patient Questionnaire (continued)

Please list any other medical conditions you have and any operations with the date they occurred:

Operation	*Date*
Appendicectomy	1998

Allergies
Have you ever been allergic to any medication? Yes ☐ No ☐/
If yes, please list the medicines:

Drug	*Date*

Do you take any regular medication Yes ☐ No☐
If yes, please list and attach a copy of your repeat medication slip

Drug	*Dose*

Children's vaccination history: Please list all vaccinations:

Vaccination	*Date*

Ladies smear tests
Have you ever had a smear test? Yes ☐ No ☐
When was your last smear test? 2013

Have your parents/siblings had any serious medical conditions? Yes ☐/ No ☐
If yes, please tell us which relation to you and what condition they have?

Relation/Current Age	*Condition/Date of Occurrence*
Mother, aged 70	Stroke when 60
Father, aged 63	Diabetes about 5 years

[FOR PRACTICE USE ONLY]
BP:
Urine Dip:
Recorded on system:
Letter to follow:

Enter in : -
Summary & Family History using a READ CODE

Enter in **Sensitivities and Allergies**

Check there are NO current medications listed
Medication

Check these are recorded in
Summary & Family History

FH
Enter using **FH** button in
Summary & Family History

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CIS Navigation

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Using the Patient's **Electronic Health Record** and their ***"New Patient Questionnaire"*** form:

Explore the patient's **record** as you might do prior to a **consultation/interaction:**

- ✓ Enter any new **health** information
- ✓ Check their **medical problems / history** and add any not listed
- ✓ Record any **comments / prompts** for the next practitioner who might see the patient

Logging on to TPP SystmOne

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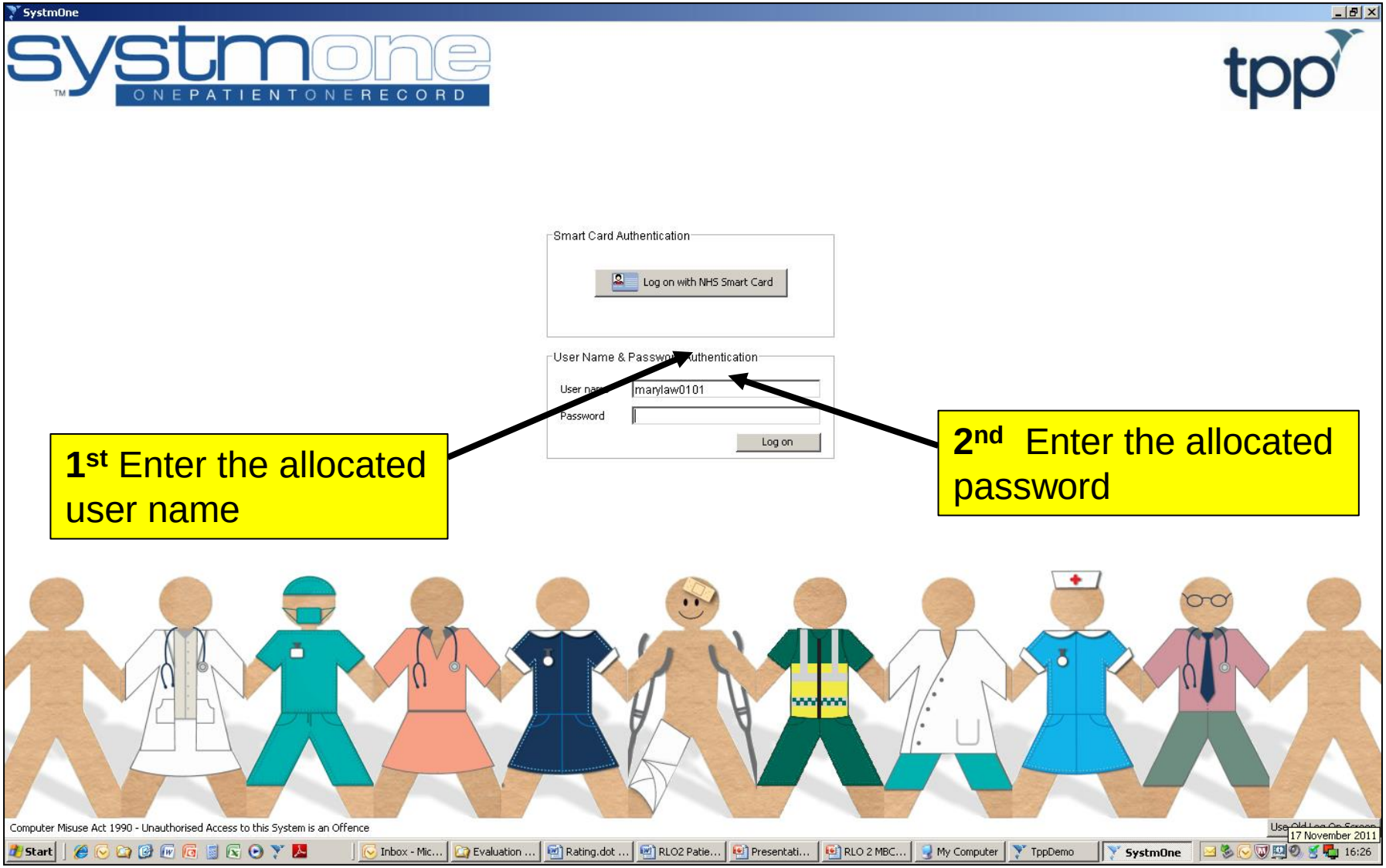

Searching for a Patient

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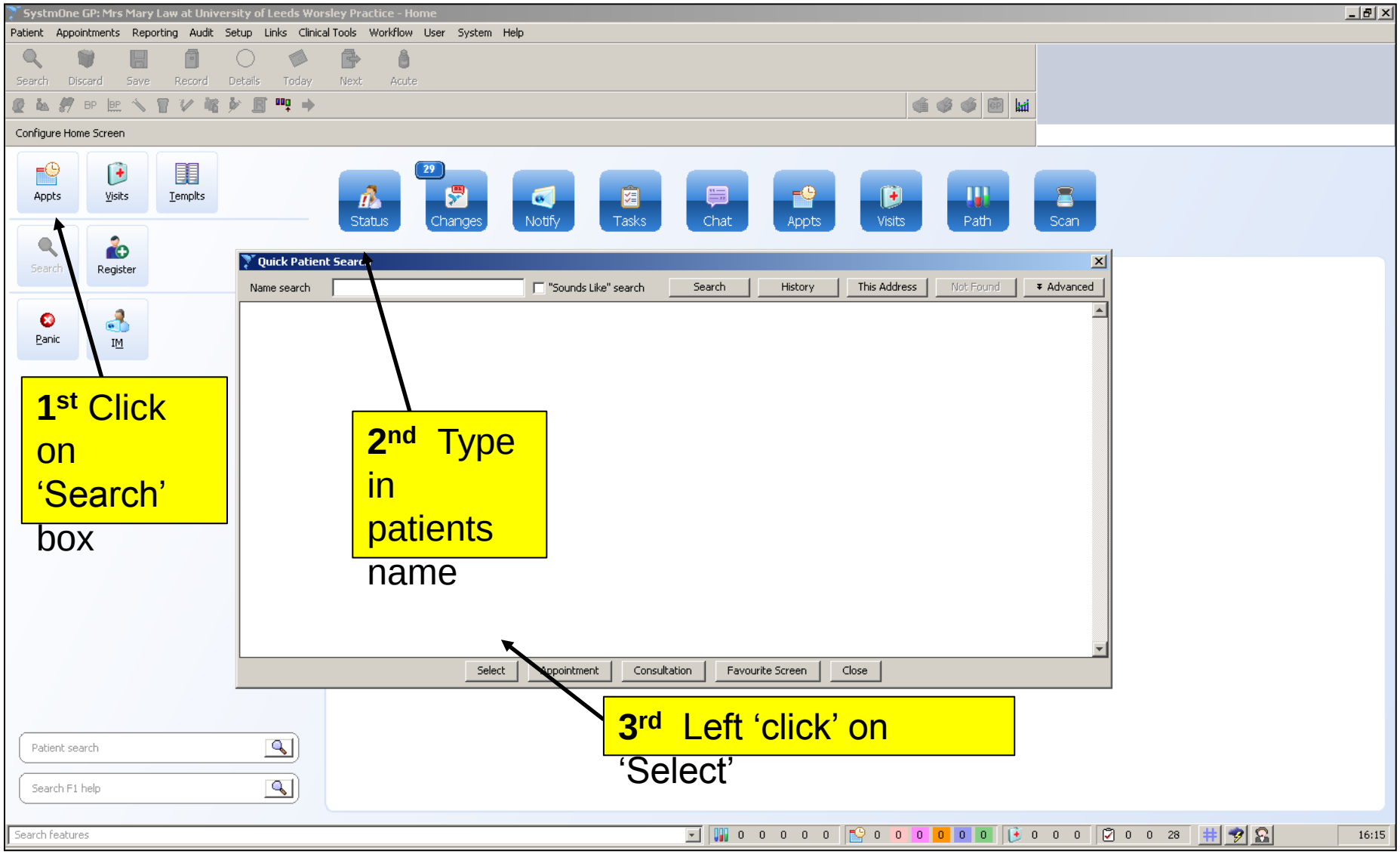

1st Click on 'Search' box

2nd Type in patients name

3rd Left 'click' on 'Select'

Inputting Patient Information

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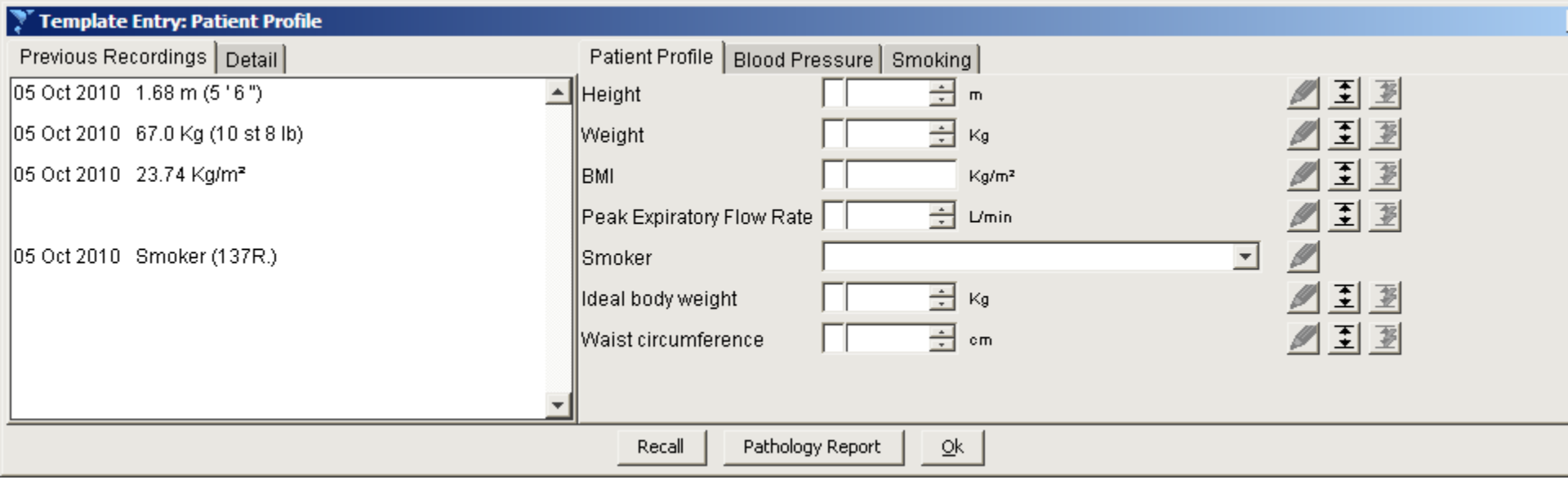

Input during a consultation: guidelines and templates

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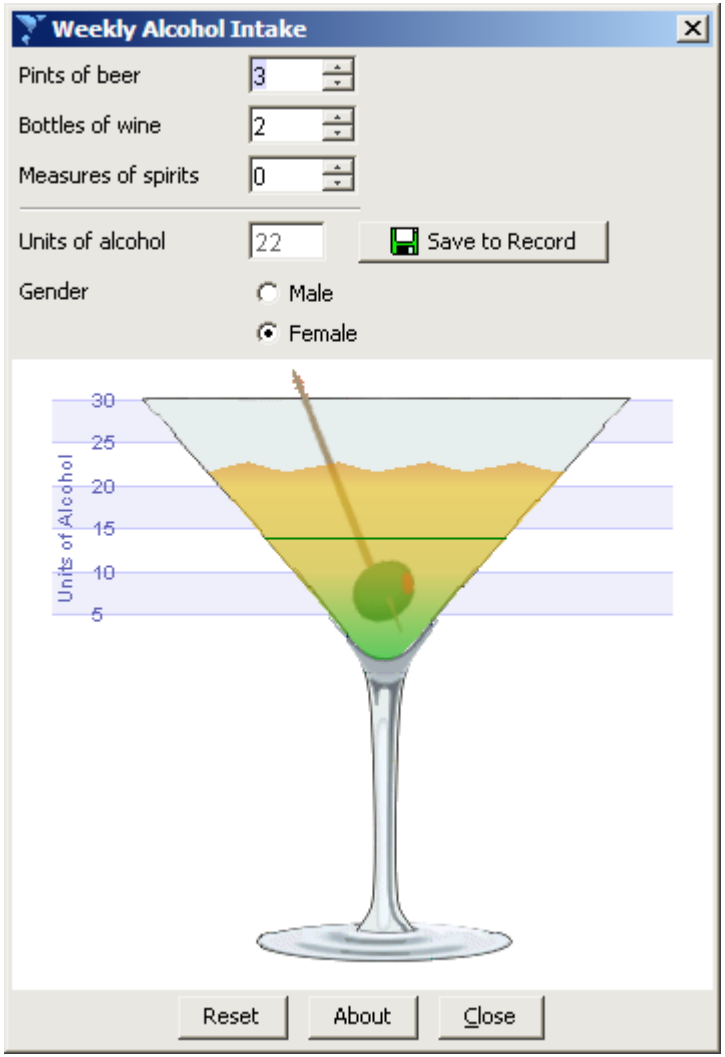

Health Informatics teaching helps shape future health practitioners

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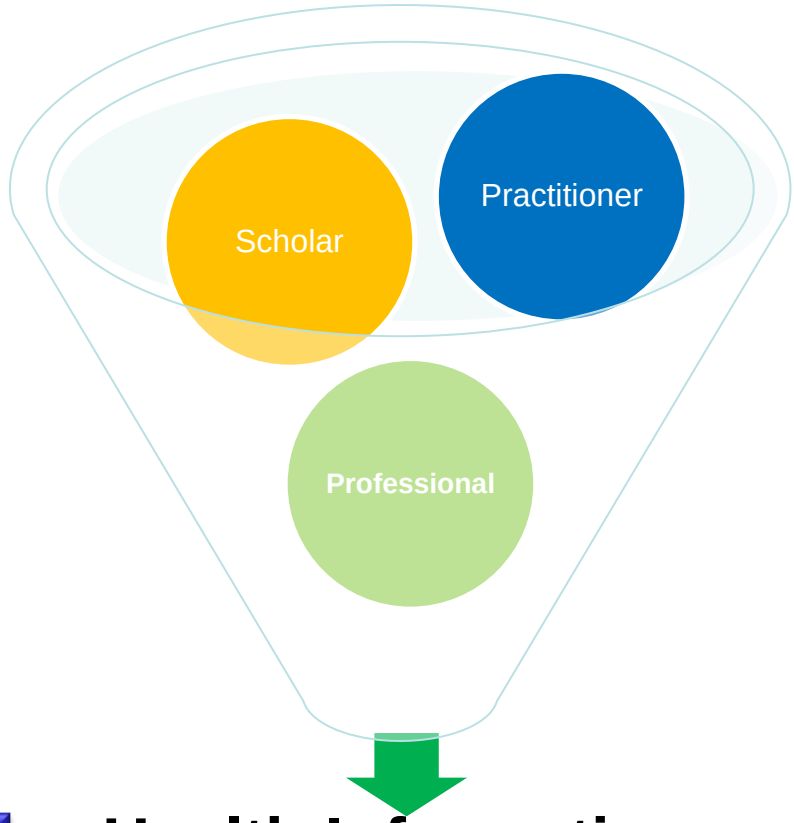
The health professional as:

- a scholar
- a practitioner
- a professional



The teaching can combine the three essential disciplines of scholar, practitioner and professional.

Outcome: An effective health practitioner who can....

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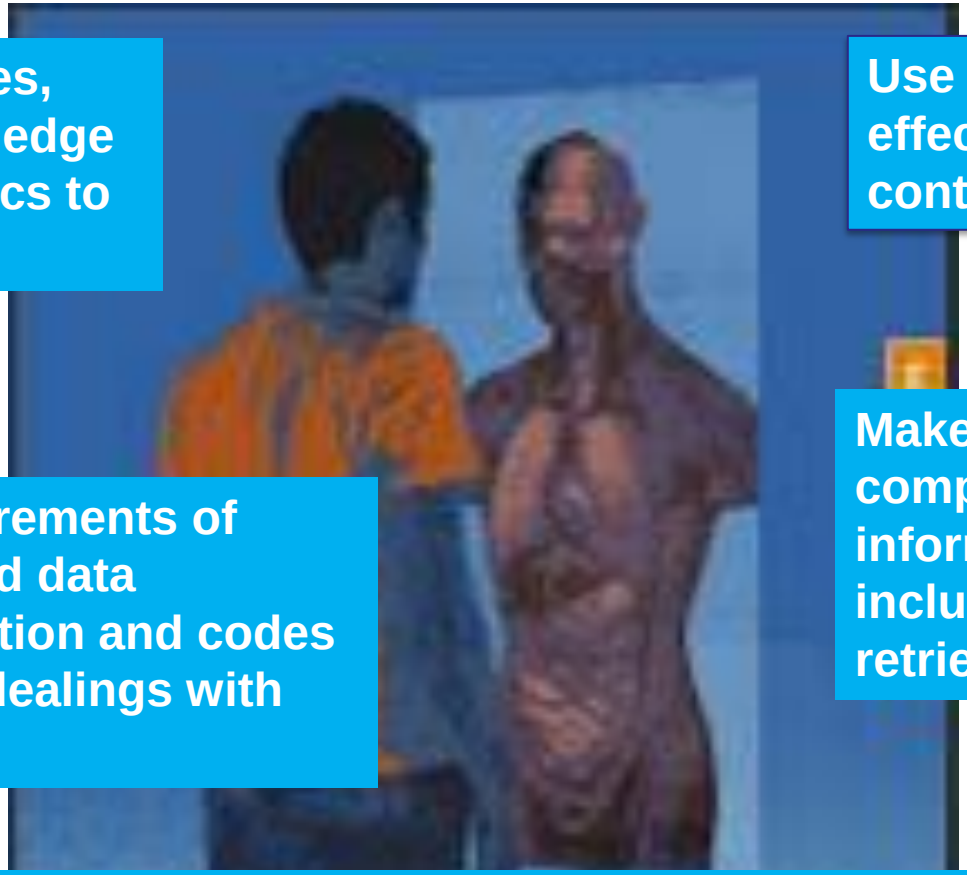

Apply the principles, method and knowledge of health informatics to medical practice

Use information effectively in a medical context

Keep to the requirements of confidentiality and data protection legislation and codes of practice in all dealings with information

Make effective use of computers and other information systems, including storing and retrieving information

Access information sources and use the information in relation to patient care, health promotion, giving advice and information to patients, and research and education

Coverage /Use

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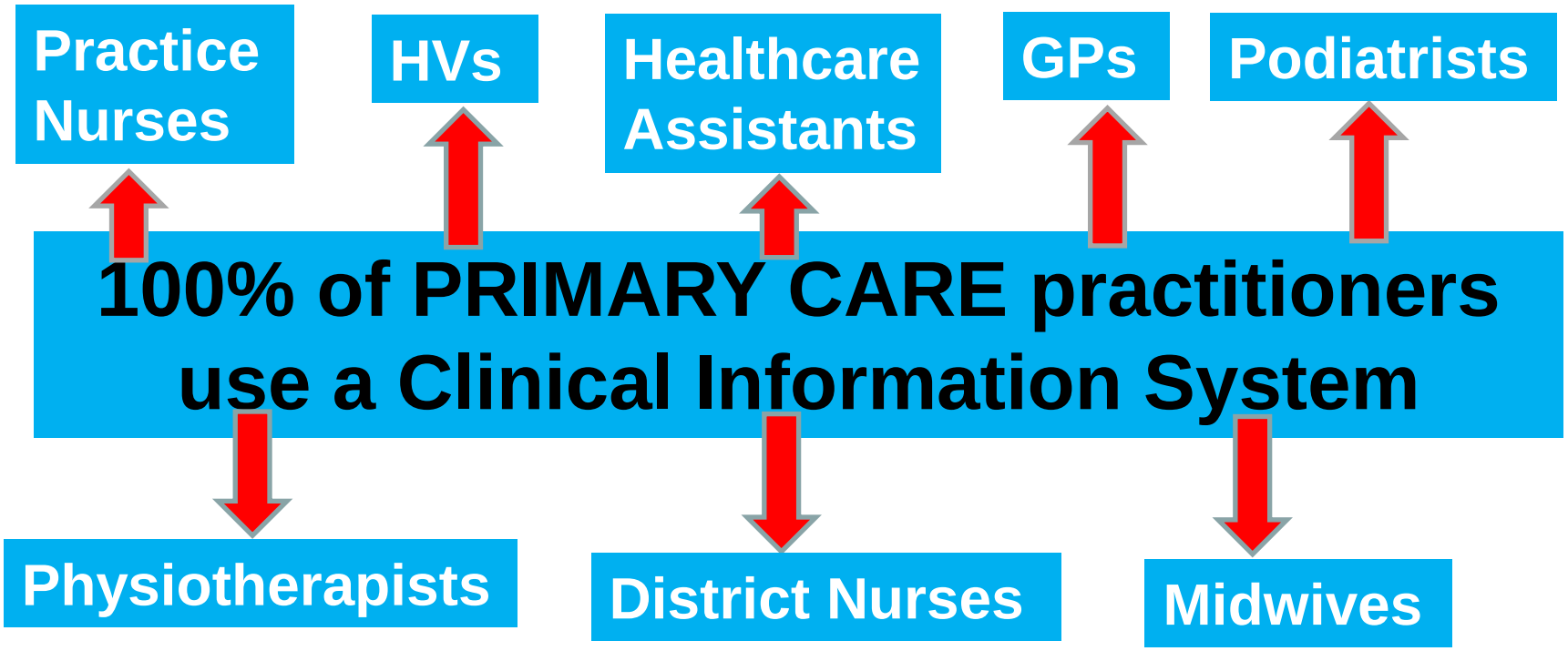

CIS4PC content is transferable/adaptable for all healthcare students:

Resources currently delivered within West Yorkshire

University of Leeds: **MBChB & Nursing**;

University of Bradford: **Nursing, Midwifery, Radiography, Occupational Therapy**, & **Physiotherapy**

2250 medical students, over 1000 nursing and allied health students

…and counting!

Any Questions?

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